

I claim:

1. A stacking apparatus for integrated circuit assemblies comprising at least one substrate and one integrated circuit assembly stacking over each other, wherein:

5 the substrate has an opening in the center of a upper surface of the substrate and a plurality of solder spots located on the periphery of the opening, the solder spots being electrically connected to lower surface of the substrate; and

 the integrated circuit assembly sunk in the aforementioned
10 opening, with its legs soldering on the solder spots of the substrate, combining the substrate to make a unit structure; two or more such units can be stacked and soldered over each other, with their bottom soldering to a surface of a printed circuit board.

2. The stacking apparatus of claim 1, wherein the opening in the center
15 of the substrate is a through hole running through an upper surface and a lower surface of the substrate.

3. The stacking apparatus of claim 1, wherein the opening in the center of the substrate is a cavity sunk from a surface of the substrate.

4. The stacking apparatus of claim 2, wherein the periphery of the
20 opening has solder spots located on the upper surface and the lower surface of the substrate; the solder spots on the upper surface and the lower surface are connected electrically.

5. The stacking apparatus of claim 3, wherein the periphery of the cavity has solder spots that are electrically connected to the other surface of the substrate.
6. The stacking apparatus of claim 5, wherein the solder spots on the periphery of the cavity of the substrate are electrically connected to the surface of the printed circuit board.
7. The stacking apparatus of claim 1, wherein the substrate has a lateral side that has air vents communicating with the opening in the center thereof.
8. The stacking apparatus of claim 1, wherein the units are soldered and coupled through corresponding legs located on an upper layer unit and a lower layer unit, the substrate of the lower layer unit has a bottom side bonding to the printed circuit board to form stacking.
9. The stacking apparatus of claim 1, wherein the units include a lower layer unit which has legs soldering on the printed circuit board, and an upper layer unit which has legs bonding to solder spots located on an upper surface of a substrate of the lower layer unit to form stacking.
10. The stacking apparatus of claim 1, wherein a portion of bottom of the lower unit sinks into the cavity of the surface of the printed circuit board.